REMARKS

The comments of the Examiner as set forth in the official office action have been carefully studied and reviewed. In this response, claim 11 has been amended and new claims 25-27 have been added. For the reasons set forth below, it is respectfully urged that the present application is in condition for allowance.

Claims 11, 13 and 14 stand rejected under 35 USC 102(b) as being anticipated by de Nevers, U.S. Patent No. 4,182,400. De Nevers discloses an auger in a tube where the auger includes holes in the wings of the auger. A small particle size flow of granular material enters the auger at a top end. A large particle size flow of granular material enters the lower end. As the auger conveys the large sized particles upwardly, the small size particles sift downwardly, coming into contact with the large particles and resulting in heat transfer between the large and small particles. In this case, there is no heat exchanger or a heater tube. The heat comes from one set of the particles. In claim 11 as amended herein, the claim calls for a heat exchanger including a heater tube that forms a heating element. The spiral element is disposed in the heater tube where the spiral element causes the biomaterial stream to flow in a spiral path, and for heat transfer to occur from the heat exchanger itself to the biomaterial flowing in the heater tube.

In order to anticipate, de Nevers would have to show each and every element and limitation of the claim. Clearly, it does not.

In addition, the Examiner has rejected claims 11-14 under 35 USC 102(b) as being anticipated by a series of references including: 1) DE 4300011; 2) WO 98/04879; 3) GB 424236; 4) Welledits; 5) JP 11-90401; or 6) FR 2608380. These six references have been carefully studied and reviewed. However, it is not seen where either one of these reference teach each and every limitation of claim 11, as amended herein. That is, there is no teaching in these references of a system for processing biomaterial stream through a tube-type heat

exchanger, including a spiral element for inducing spiral flow of the biomaterial, and at the same time utilizing the heat exchanger and the heater tube to transfer heat to the biomaterial. The findings with respect to the six references have been carefully studied and reviewed. It does not appear where the Examiner finds that any one of these references include a heat exchanger that comprises a heater tube for conveying the biomaterial stream there through and wherein the heater tube itself forms a heating element that actually heats the material passing there through. In order to anticipate claim 11, among other things, the alleged anticipating reference must include a heat exchanger comprising a heater tube for channeling the biomaterial stream and wherein the heater tube forms a heating element that actually heats the biomaterial passing there through. A showing of a tube for channeling biomaterial where the material is heated by a source other than the tube is insufficient to anticipate the claimed invention. The tube or heater tube itself must form a part of the heat exchanger and actually heat the material passing through the tube.

For the foregoing reasons, it is respectfully urged that the present application is in condition for allowance and allowance is respectfully requested.

Respectfully submitted,

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